



UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office

Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
09/390,299	09/03/99	SASAKI T	0039-7343-35

022850 MM91/1024
OBLON SPIVAK MCCLELLAND MAIER & NEUSTADT
FOURTH FLOOR
1755 JEFFERSON DAVIS HIGHWAY
ARLINGTON VA 22202

EXAMINER	
HOBDEN, P	
ART UNIT	PAPER NUMBER
2882	

DATE MAILED: 10/24/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

09/390,299

Applicant(s)

SASAKI, TOMIYA

Examiner

Pamela R. Hobden

Art Unit

2882

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 October 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

Application/Control Number: 09/390,299
Art Unit: 2882

DETAILED ACTION

Continued Prosecution Application

1. The request filed on 10/11/01 for a Continued Prosecution Application (CPA) under 37 CFR 1.53(d) based on parent Application No. 09/390,299 is acceptable and a CPA has been established. An action on the CPA follows.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-14, 15, and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tybinkowski et al (US 5,982,844A) in view of Swain et al (US 5,448,608). Tybinkowski et al discloses a gantry (30) of an x-ray computer tomography apparatus comprising an x-ray tube (36), an x-ray detector (40), a rotation ring mounting the x-ray tube and the x-ray detector, a ring frame (54) rotatably supporting the rotation ring, a plurality of main posts tiltably supporting the ring frame (figure 3), and a plurality of props jointing to the main posts obliquely to reinforce the main posts (figure 3). The props are arranged between the two main posts. (figure 3), wherein the base comprises outside frames, inside frames, and crossbars provided inside the frame, the props being connected between the cross bars and the main posts (figure 3), wherein the props are mounted on a central portion of the base (figure 3), the main posts are

provided with two props, (figure 2). Each of the props fixed to the base are at an angle of at least 45 degrees. The sub props abut the main posts obliquely, with the sub-props being perpendicular to the props (figure 2). The sub-props are shorter than the props, (figure 2), wherein each of the main posts is provided with two sub-props.

The gantry comprises electric members including a power source, (46) for generating drive power to rotate the rotation ring and tilt the ring frame, a scan control unit and a transmission unit for externally outputting a signal detected by the detector (column 5 line 30-38), the electric members being arranged in spaces defined by the base, the main posts and the props. (Figure 2)

Tybinkowski et al fails to disclose a system wherein the rotation ring is positioned between the main posts. Swain et al discloses a system wherein the rotation ring is positioned between the main posts. It would be obvious to one skilled in the art to incorporate the teachings of Swain into the disclosure of Tybinkowski. One would be motivated to utilize these teachings in order to improve stability of the system, by allowing the center of gravity to be more towards the center of the structure, and thus more easily movable, and less likely to tilt..

Tybinkowski et al fails to disclose a system where the props are in a V shape, where they form a 90 degree angle around the post, or wherein the props abut the main post at a height at least two thirds of the main post, or a gantry wherein the two sub-props are arranged at an angle of 180 degrees around the main post. It would be obvious to one skilled in the art to utilize a variety of prop support configurations, including but not inclusive of multiple props, inverted V shapes, and multiple angle

variations, some of which are described in the additional art supplied in the references. It would be a design choice to choose one of the many prop support configurations.

One would be motivated to utilize any of these selections as appropriate by system requirement (weight of the system, size of the area in which it is to be placed, etc). As long as adequate support is provided to the computed tomography system to minimize damping and extraneous movement, location and style of support are not critical to scanning capability of the system.

4. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tybinkowski et al (US 5,982,844). Tybinkowski's teachings are as shown above. Tybinkowski et al fails to specifically disclose a triangle block for reinforcing the main posts. However, Tybinkowski et al discloses a triangular support structure as shown in figure 3. Absent a showing of criticality, functionally, the supports would operate similarly, and would be interchangeable. It would be obvious to one skilled in the art to utilize such a modification, and one would be motivated to utilize a triangular support to enhance the support structure as the use of triangular structures to provide superior structural integrity is notoriously well known in the art.

Response to Arguments

5. Applicant's arguments with respect to claims 1, 16, and 17 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Pamela R. Hobden whose telephone number is (703)-

306-5435. The examiner can normally be reached on Monday-Thursday 8:30-6:00, Alternating Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Kim can be reached on (703)-305-3492. The fax phone numbers for the organization where this application or proceeding is assigned are (703)-308-7382 for regular communications and (703)-308-7722 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)-308-0956.

prh
October 22, 2001



David P. Porta
Primary Examiner